

Remarks

This Response to Office Action is responsive to the Office Action mailed on May 25, 2004. Entry of this Response and reconsideration of the instant application in view thereof are respectfully requested.

Claims 1-10 are pending. Claims 5-10 are withdrawn from consideration. Claims 1-4 are rejected. Applicant has provisionally elected with traverse claims 1-4.

Claim 1 has been amended to clarify the invention. Support for this amendment may be found in the specification, for example, on page 4. No new matter has been added.

Claim Rejection under 35 U.S.C. §102

Claims 1-3 are rejected under 35 U.S.C. §102(b) as being anticipated by Wesslau et al., EP 0019170 or DE 1696163. Applicants respectfully submit that Wesslau et al., EP 0019170 and DE 1696163 do not disclose the claimed invention.

Wesslau et al. disclose compositions of copolymers A having 10-90 weight % of esters of alcohols having from 1 to 8 carbon atoms with an ethylenically unsaturated acid and 90-10 weight % of a vinyl ester of a monocarboxylic acid and copolymers B having 15-55 weight % of an ethylenically unsaturated acid, 0.01-10 weight % of an acrylamide, methacrylamide and mixtures thereof, 24-45 weight percent of esters of alcohols having from 1 to 4 carbon atoms with an ethylenically unsaturated acid, and 20-40 weight % of ethylenically unsaturated compounds. (See '410 patent, claim 1). Wesslau does not disclose the use of styrene, acrylonitrile, or methacrylonitrile in a copolymer binder in combination with a hydrophobically modified alkali soluble emulsion.

EP 0019170 discloses a binder composition for paper coatings which contains from 70-95 parts by weight of emulsion copolymer A and 30 to 5 parts by weight of emulsion copolymer B. Emulsion copolymer A contains as polymerized units from 80-96 weight % of C₂ to C₈ alkyl esters of acrylic acid, up to 19.5 weight % of styrene, acrylonitrile, methyl methacrylate, and 0.5 to 10 weight % of other monomers which form water soluble homopolymers. Emulsion copolymer B contains as polymerized units from 15 to 55 weight % of acrylic acid or methacrylic acid, up to 10 weight % acrylamide or methacrylamide, and from 85 to 45 weight % of other monomers which form water insoluble homopolymers. EP 0019170 also does not disclose the use of styrene, acrylonitrile, or methacrylonitrile in a copolymer binder in combination with a hydrophobically modified alkali soluble emulsion.

DE 1696163 discloses a composition containing copolymer A, which is a mixture of monohydric aliphatic alcohols having 1 to 12 carbons atoms and acrylic and/or methacrylic acid, styrene or acrylonitrile, and ethylenically unsaturated compounds and copolymer B, which is a mixture of esters of monohydric aliphatic alcohols having 1 to 8 carbons atoms and acrylic and/or methacrylic acid, ethylenically unsaturated carboxylic acids having 3 to 5 carbon atoms, acrylamide and/or methacrylamide, and other ethylenically unsaturated compounds. Similarly, DE 1696163 does not disclose the use of styrene, acrylonitrile, or methacrylonitrile in a copolymer binder in combination with a hydrophobically modified alkali soluble emulsion.

As described in the Application, the hydrophobically modified alkali-soluble binder provides good high speed runnability to the paper coating composition, which is an improvement over the prior art. (See, Application, p. 2, 4). Because none of these references disclose the use of styrene, acrylonitrile, or methacrylonitrile in a copolymer binder in combination with a hydrophobically modified alkali soluble emulsion, Applicants request that this rejection be withdrawn.

Claim Rejection under 35 U.S.C. §103(a)

Claims 4 is rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Wesslau et al. Applicants submit that Wesslau et al. neither teach nor disclose the invention.

In particular, Wesslau et al. neither teach nor disclose the use of styrene, acrylonitrile, or methacrylonitrile in a copolymer binder in combination with a hydrophobically modified alkali soluble emulsion or the average particle range of 0.1 to 0.5 μm , which, as stated in the Application, provides good paper binder properties and high speed runnability. (See, Application, p. 7). Therefore, Applicants request that this rejection also be withdrawn.

Conclusion

In view of the above remarks, Applicants believe that the pending claims are in condition for allowance, and early and favorable action is earnestly solicited.

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Amdt. Dated August 25, 2004

This Paper is believed to be timely filed and that no additional fees are due. However, if any additional fee is deemed required for consideration of this Response, the Commissioner is hereby authorized to charge such fee to Deposit Account No. 18-1850.

Respectfully submitted,



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